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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/631,898	08/04/2000	David J. Wetherall	41007.P001.	1934

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EXAMINER

NGUYEN, STEVEN H D

ART UNIT PAPER NUMBER

2665

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

Office Action Summary	Application No. 09/631,898	Applicant(s) WETHERALL ET AL.	
	Examiner Steven HD Nguyen	Art Unit 2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-26 and 28-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-26 and 28-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/02</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 11 and 27 are withdrawn in view of the newly discovered reference(s) to Phaal. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1-10, 12-26 and 28-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phaal (USP 6894972) in view of Wan (USP 6529475).

Regarding claims 1-5, 8-10, 12-16 and 19-23, Phaal discloses a network comprising a plurality of network nodes (Fig 2, Terminals); a plurality of routing devices to route network traffics between selected ones of said network nodes (Fig 2, Ref 220, 220, and 240); a plurality

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of sensors (Fig 2, INMON agents for monitoring and collecting the traffic information for reporting to the monitor servers 210 of fig 2, See col. 4, lines 30-45), either integrally disposed in a subset of said routing devices or externally disposed and coupled to the subset of routing devices, to monitor and report on network traffic routed through the subset of routing devices in different network domain (Fig 2, discloses two different network domains 220 and 230), and a plurality of director devices corresponding to the network domains to facilitate receipt of information on network traffic from the sensors for said subset of routing devices in order to determine if action must be taken to minimize the congestion (Col. 4, lines 30-45). However, Phaal fails to disclose a director for determining whether moderating actions are to be taken to moderate an amount of network traffic destined for at least one of said network nodes, based at least in part on some of said network traffic information received from said sensors. In the same field of endeavor, Wan disclose a director for determining whether moderating actions are to be taken to moderate an amount of network traffic destined for at least one of said network nodes, based at least in part on some of said network traffic information received from said sensors (col. 8, lines 46-57); the sensors are equipped to periodically gather data denoting at least amount of network traffic routed through said subset of routing devices, said data including destinations of said network traffic (col. 8, lines 47-57, periodically extracted data pass through the network devices); the sensors are equipped to periodically report to said director data denoting at least amount of network traffic routed through said subset of routing devices, said data including destinations of said network traffic (col. 8, lines 47-57, periodically reporting the collected data); the sensors are equipped to facilitate application of desired moderation on network traffic through selected ones of said subset of routing devices (Fig 3, Ref 206-207, col. 7, lines 2-17);

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the director is further employed to determine in response moderating actions to be taken, including where the moderating actions are to be taken, if the director determines that moderating actions are to be taken to moderate the amount of network traffic (Col. 7, lines 2-58); the director is further employed to determine in response whether filtering actions are to be taken for the at least one of the network nodes, based at least in part on some of said network traffic reports received from said sensors (Col. 7, lines 2-58, enforce service priority, filtering); the director is further employed to determine in response where the filtering actions are to be taken, if the director determines that filtering actions are to be taken to filter out network traffic (Col. 7, lines 2-58, enforce service priority, filtering); the sensors are equipped to facilitate application of desired filtering on network traffic through selected ones of said subset of routing devices (Col. 7, lines 2-58, enforce service priority, filtering); sensing or determining is performing using a collection of hierarchically organized devices (Fig 2 and Fig 3).

Since, Phaal suggests a method and system for using the information that collected from the sensors for determining if a node is in overload conditions in order to reroute or filter the traffic and reporting them to at least one of central server. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for collecting the traffic information of the nodes and using this information for controlling the traffic of the networks as disclosed by Wan into the teaching of Phaal. The motivation would have been to reduce congestion in real time and improve the throughput of the network.

Regarding claims 24-26, 29-31, 33 and 39, Phaal discloses an apparatus comprising INMON agent for collecting the traffic information of a node which includes an interface for

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facilitate the collected data, analysis and traffic regulation to at least one of monitoring servers “directory device” in different network domains (Fig 2, ref 210 is one of monitor servers for collecting data from an agent via an interface “director device” for performing analysis and generate report via an interface at the different network domains “each local network”, col. 4, lines 30-46). However, Phaal fails to fully disclose a storage medium having stored therein a plurality of programming instructions designed to implement a requestor to request a routing device of a network for data denoting network traffic routed through said routing device, and to request alteration of routing operations of said routing device to moderate an amount of network traffic going through said routing device, a reporter to report said data denoting network traffic routed through said routing device, and a regulator to control submission of said network traffic moderation routing operation alteration requests to said routing device, responsive to moderation instructions provided, and a processor coupled the storage medium to execute the programming instructions. In the same field of endeavor, Wan discloses an apparatus comprising a storage medium having stored therein a plurality of programming instructions designed to implement a requestor (Fig 3, Ref 202 and 203) to request a routing device of a network for data denoting network traffic routed through said routing device, and to request alteration of routing operations of said routing device to moderate an amount of network traffic going through said routing device, a reporter (Fig 3, Ref 204) to report said data denoting network traffic routed through said routing device, and a regulator (Fig 3, Ref 204) to control submission of said network traffic moderation routing operation alteration requests to said routing device, responsive to moderation instructions provided, and a processor coupled the storage medium to execute the programming instructions (Fig 2, Ref 110 includes a requester, reporter and regulator for collecting the traffic

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information via the routing device 101 and 100 for reporting to another device and controlling the routing operation of the routing devices 100 and 101 by provided instruction such monitoring, See Fig 3, col. 8, lines 38-57); a communication interface coupled to the processor, to couple the apparatus to said routing device and to facilitate submission of said network traffic moderation routing operation alteration requests to said routing device (Fig 3, send a provided instruction to the Ref 100) and a communication interface coupled to the processor, to couple said apparatus to a director (Fig 2, Ref 112) that determines whether moderate actions are to be taken to moderate an amount of network traffic, based on said data reported, to facilitate reporting of said data to said director (Fig 2, Ref 112 and Fig 3) and discloses the requestor is further used to request filtering operations of said routing device to filter out network traffic going through said routing device (Col. 7, lines 2-58, enforce service priority, filtering).

Since, Phaal suggests a method and system for using the information that collected from the sensors for determining if a node is in overload conditions in order to reroute or filter the traffic and reporting them to at least one of central server. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for collecting the traffic information of the nodes and using this information for controlling the traffic of the networks as disclosed by Wan into the teaching of Phaal. The motivation would have been to reduce congestion in real time and improve the throughput of the network.

Regarding claims 34-37, Phaal discloses an apparatus comprising INMON agent for collecting the traffic information of a node which includes an interface for facilitate the collected data, analysis and traffic regulation to at least one of monitoring servers “director” of a different

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network domains (Fig 2, ref 210 is one of monitor server, col. 4, lines 30-46 wherein monitor server includes a plurality of director devices such as analysis and generating a report). However, Phaal fails to disclose a storage medium having stored therein a plurality of programming instructions designed to implement director device to receive reporting of data denoting network traffic routed through a plurality of routing devices of a network, and to determine in response whether moderating actions are to be taken to moderate an amount of network traffic destined for at least one of a plurality of network nodes of said network, based at least in part or some of said reported data; and a processor coupled the storage medium to execute the programming instructions. In the same field of endeavor, Wan discloses an apparatus comprising a storage medium having stored therein a plurality of programming instructions designed to implement a director device (Fig 2, Ref 112) to receive reporting of data denoting network traffic routed through a plurality of routing devices of a network (Fig 3), and to determine in response whether moderating actions are to be taken to moderate an amount of network traffic destined for at least one of a plurality of network nodes of said network, based at least in part or some of said reported data; and a processor coupled the storage medium to execute the programming instructions (See col. 8, lines 36-57); said programming instructions are designed to determine whether a moderation threshold has been reached for a network node, based at least in part on some of said reported data (Fig 3, Ref 205, congestion must compare with a threshold) and further designed to determine moderating actions to be taken, including where the moderating actions are to be taken, if it is determined that moderating actions are to be taken to moderate an amount of network traffic (Col. 7, lines 2-58); apparatus further comprises a communication

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interface coupled to the processor, to couple the apparatus to a plurality of sensors (Fig 2, Ref 110) to receive said data reporting.

Since, Phaal suggests a method and system for using the information that collected from the sensors for determining if a node is in overload conditions in order to reroute or filter the traffic and reporting them to at least one of central server. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for collecting the traffic information of the nodes and using this information for controlling the traffic of the networks as disclosed by Wan into the teaching of Phaal. The motivation would have been to reduce congestion in real time and improve the throughput of the network.

Regarding claims 6-7, 17-18, 28, 32, and 38, Phaal and Wan fails to disclose the director is further employed to determine in response whether moderating actions are to be relaxed for the at least one of the network nodes, based at least in part or some of said network traffic reports received from said sensors and moderation relaxation actions to be taken, including where the moderation relaxation actions are to be taken, if the director determines that moderation relaxation actions are to be taken to relax moderation on the amount of network traffic. Wan suggests a method for reducing the transmission rate of the nodes or throttling back until the congestion relieved. However, the examiner takes an official notice that a method and system for sending an information to the network node after the congestion relieved in order to allow the network node to increase transmitting rate or release the priority rules are well known and expected in the art of the time of invention was made to implement a method and system for notifying the network node that the congestion relieved in order to allow the network node to

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increase transmission rate etc. into the method and system of Wan and Phaal. The motivation would have been to return the network back into normal function after enforce a rule on a traffic.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cooper (USP 6678245) discloses a method and system for management a performance of packet network.

Pashtan (USP 6542466) discloses a communication network for controlling the traffic of a node based on the report information from the monitoring devices inside the network node.

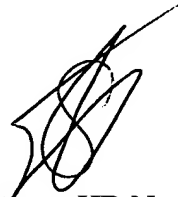
Natarajan (USP 6765864) discloses a method and system for dynamically controlling the policies of a node.

Lin (USP 6405250) discloses a NMS for receiving a report from the network management agent and using this report for choosing an action to be enforced by a network node.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven HD Nguyen
Primary Examiner
Art Unit 2665
7/2/05